Mobile Video Analysis Software User Guide

Version 2.0.8

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1. Introduction

§1.1 Software Overview

Mobile Video Analysis Software (MVA) is specially designed to playback and analyze the video date offline from the mobile DVR. With the software, vehicle status, GPS information, location on e-map, sensor status, G-sensor information etc. can be acquired, greatly facilitating subsequent verification.

§1.2 Documentation Overview

This document provides information about operating the MVA software and its main functions. It is organized as follows:

Chapter 1: Introduction. The document and the software are introduced briefly;

Chapter 2: Getting started. The software interfaces and key functions are introduced briefly;

Chapter 3: Menu introduction. The menu of the software is introduced;

Chapter 4: Operating guide. The operations of the software are introduced in details;

§1.3 Application Range

This document applies to the MVA software, whose version is V2.0.8.0 or below.

§1.4 System Requirements

Minimum requirements:

CPU: Pentium III 866MHz CPU;

RAM: 256M;

HDD: 1GB.

Recommended system configuration:

CPU: Pentium4 2.4GHZ or above;

RAM: 1GB or above;

HDD: 1GB or above.

Software environmental requirements (operating system):

IE: IE6.0 or above;

OS: Microsoft Windows NT+SP4 or above.

Note: MVA software is compatible with Windows Vista & Windows 7 OS.

2. Getting Started

§2.1 Main Interface

The main interface is show as follows:

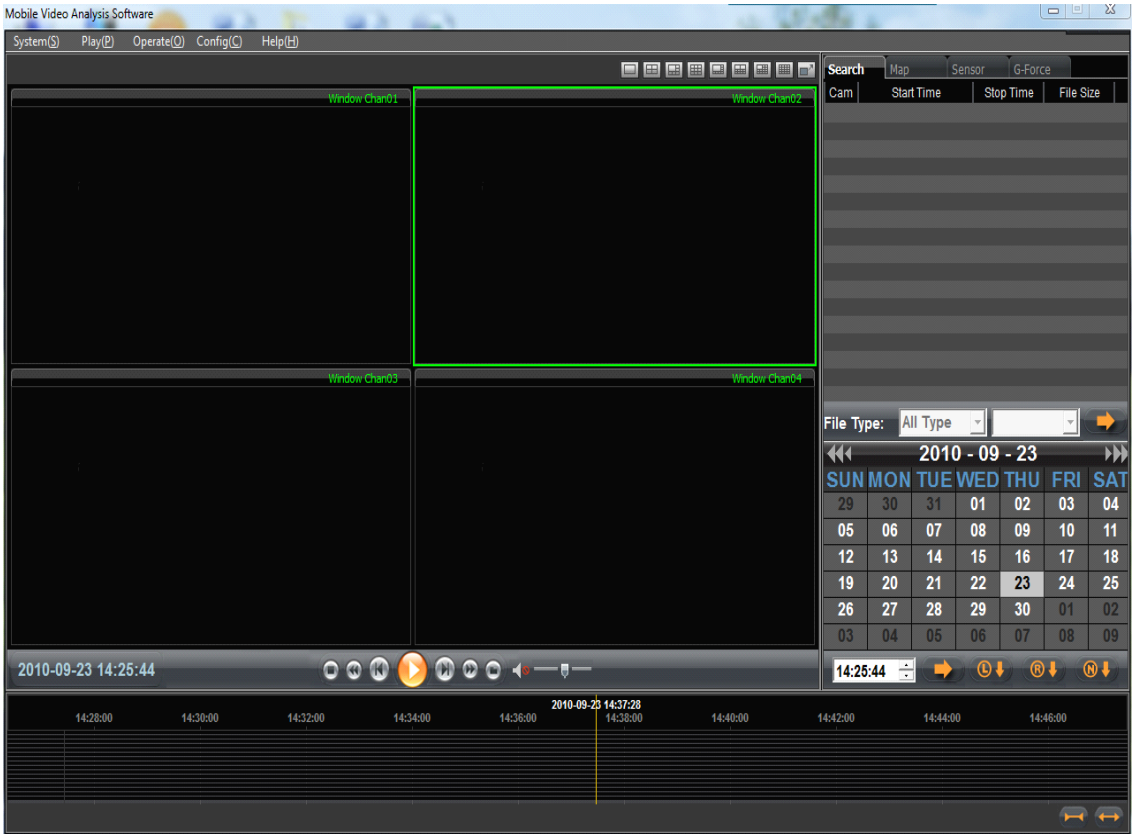


Figure 2.1 MVA File List Interface

MVA file list interface contains playback windows, play control buttons, time axis area, Tab pages, file list, file type selections, calendar, local file loading button, HDD file loading button and network file loading button.

This interface is mainly for loading recorded files. By selecting local/ HDD/ network loading file buttons to list the corresponding files. The recorded file information will display on the file list and the corresponding date will highlight on calendar. Double click the file on the list to play the related video.

§2.2 MVA E-Map Interface

After booting up, E-map interface will display as follow:

Figure 2.2 MVA E-map Interface

MVA E-map interface contains playback windows, play control buttons, time axis area, Tab pages, E-map, speed panel and direction panel.

This interface is mainly for acquiring the GPS, speed and direction data and representing the data on E-map, speed panel and direction panel.

Please note: E-map should work with GPS module. If using MapInfo V5.02 as the offline map, please contact the local supplier of MapInfo.

§2.3 MVA Sensor Interface

After booting up, sensor interface will display as follow:

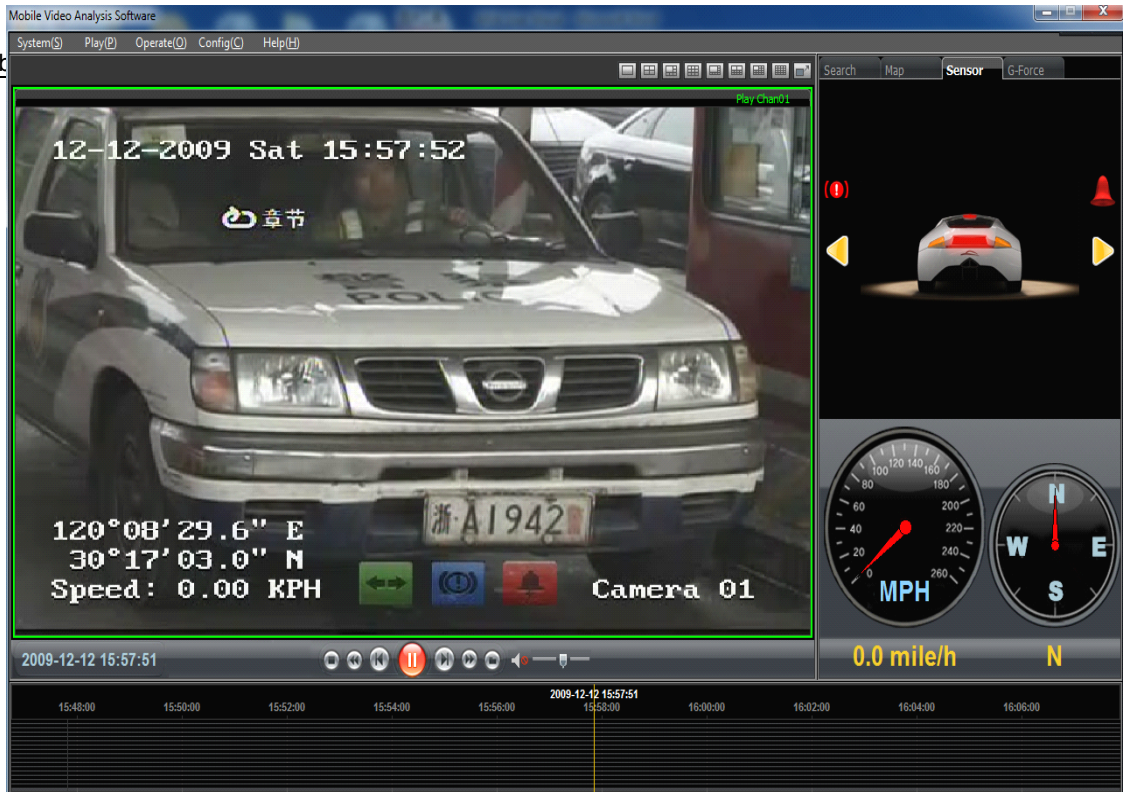


Figure 2.3 MVA Sensor Interface

MVA sensor interface contains playback windows, play control buttons, time axis area, Tab pages, sensor representing window, speed panel and direction panel.

This interface is mainly for representing the vehicle status obtained by sensor module. There are seven statuses, include turning right, turning left, warning, braking, alarm in and normal. The speed panel and direction panel indicate the corresponding speed and direction.

Please note: Sensor display should work with sensor module.

§2.4 MVA G-Force Sensor

After booting up, G-force interface will display as follow:

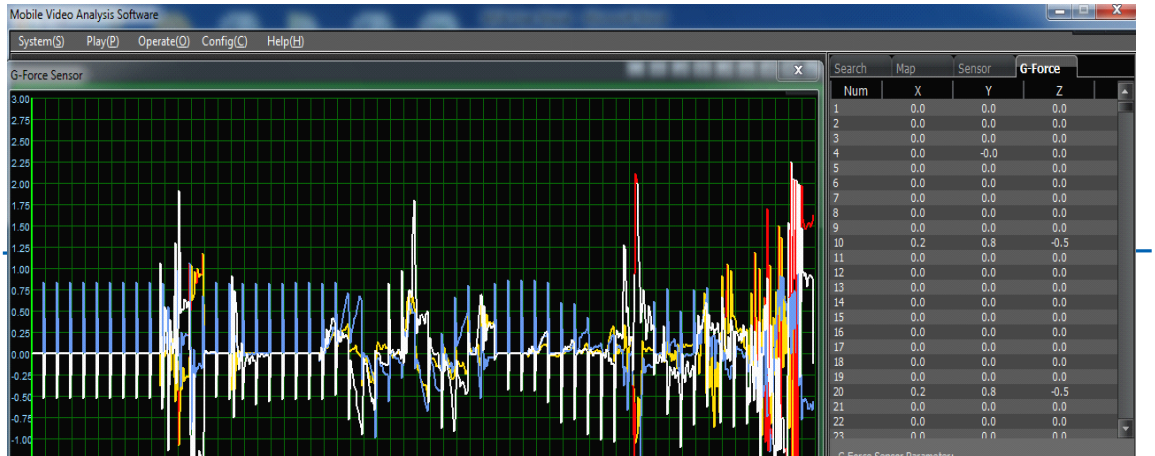


Figure 2.4 MVA G-force Interface

MVA G-Force sensor interface contains G-force sensor graph window, G-force value list, G-force sensor parameter configuration menu.

This interface is mainly for displaying the X, Y, Z three axis status of vehicle. The G-force sensor parameter configuration menu is for adjusting the size of graph and setting the critical value of alarm. The G-force data can be exported in this menu too.

Please note: G-force representing should work with G-force module.

§2.5 MVA Modules

Main modules of MVA are as follow:

01. Local file playback;
02. HDD file playback;
03. Network file playback;
04. Video classification under HDD file playback module;
05. Alarm video playback;
06. User-defined alarm;
07. HDD files export;

08. File download;
09. Playback positioning;
10. Video clip;
11. Video format convert;
12. Drive path tracking;
13. Vehicle information display;
14. HDD files export;
15. Sensor-in data representing;
16. G-force data representing;
17. DVR Network parameters settings;
18. CD/DVD burning;
19. Calendar display;
20. Video playback control.

§2.6 MVA Function Description

The functions of MVA are as follow:

01. **System menu:** Shortcut of all interfaces;
02. **Playback window:** Playback video;
03. **Play control buttons:** Control: play control buttons, include start, stop, pause, fast forward, slow forward, single frame forward, single frame backward, snapshot and audio control;
04. **Time display:** Display the current time of playing file;
05. **Time line:** Display playback progress;
06. **Split Screen button:** 8 screen splitting modes and one full screen display mode;
07. **Search TAB:** Show the search files, calendar, set play time button, load local file button, load HDD file button, and load network file button;
08. **Map TAB:** Show the E-map, speed panel and direction panel;
09. **Sensor TAB:** Show sensor status, speed panel and direction panel;
10. **G-force TAB:** Display G-force information of X, Y, Z axes, parameters settings, export corresponding data;

11. **File list:** Show the file information, including start time, stop time and file size;
12. **HDD file type selection:** Select HDD file, alarm type;
13. **Calendar:** Select date, the date with recording file will highlight;
14. **Set play time button:** Find the file according to the calendar date;
15. **Load local file button:** Select local recorded file directory;
16. **Load HDD file button:** It can recognize pluggable HDD automatically, and load the files;
17. **Load network DVR/DVS file button:** Load the recorded file on the DVR/ DVS which is in the same LAN;
18. **Time line scaling button:** The default is 2min per grid, this button is used for changing interval time of grids;
19. **E-map:** The default online map is Google Map, which requires the network connection to display the vehicle position and direction. You can also choose MapInfo V5.02 as offline map;
20. **Speed panel:** Show the current vehicle direction with pointer;
21. **Direction panel:** Show the current vehicle direction with pointer;
22. **Speed, direction display:** Show the current vehicle speed and direction with text;
23. **Colored time line:** The colored time line means recorded files exist during this period.

3. Menu Introduction

This chapter will present the functions of MVA menu.

The menu is show as follow:

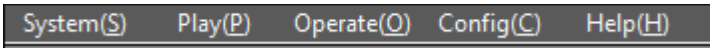


Figure 3.1 MVA Menu

§3.1 System(S) Menu

Exit: Exit this application.

§3.2 Play(P) Menu

Full Screen: Change to full screen preview;

Split Screen: There are 1, 4, 6, 8, 9, 10, 13, 16 windows division selections;

View Choose: Select the channel need to preview;

Sound Choose: Select one channel for sound preview;

§3.3 Operate(O) Menu

File Load:

Local Load: Select the file locally to playback;

Disk Load: Select the file on pluggable HDD to playback;

Net Load: Select the file on the DVR which is in the same LAN to playback;

Video Dispose:

Set Play Time: Specify a time to playback the certain file;

Video Cut: Clip the playing file;

Video Convert: Convert the playing file to AVI format.

File Export:

Video Download: Download the file on pluggable HDD or on network DVR;

Disk Batch Export: Batch export the file on pluggable HDD;

CD/ DVD Burning: Burning specified files on CD/ DVD.

§3.4 Config(C) Menu

System Config: Configuration of system parameters such as saving path, map config, speed mode and etc;

Network Setting: Setting parameters of mobile DVR.

§3.5 Help(H) Menu

About Software: Software version information..

4. Operating Guide

§4.1 Google Map authorization

Google Map (free version) is the default map of the MVA software. MVA will pop up Google Map (free version) Terms of Service dialog box when using this software for the first time, as shown below:

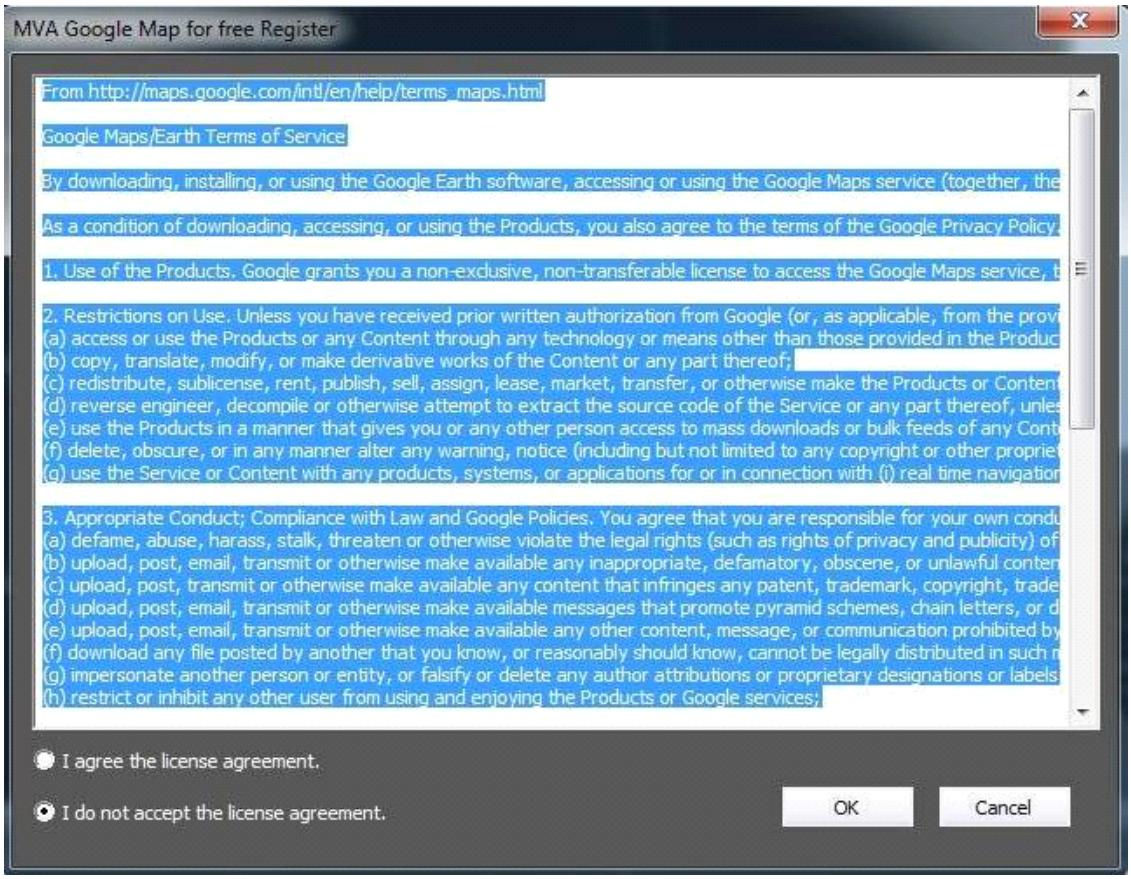

MVA Google Map for free Register
From http://maps.google.com/intl/en/help/terms_maps.html
Google Maps/Earth Terms of Service
By downloading, installing, or using the Google Earth software, accessing or using the Google Maps service (together, the
As a condition of downloading, accessing, or using the Products, you also agree to the terms of the Google Privacy Policy.
1. Use of the Products. Google grants you a non-exclusive, non-transferable license to access the Google Maps service, t
2. Restrictions on Use. Unless you have received prior written authorization from Google (or, as applicable, from the provi
(a) access or use the Products or any Content through any technology or means other than those provided in the Produc
(b) copy, translate, modify, or make derivative works of the Content or any part thereof;
(c) redistribute, sublicense, rent, publish, sell, assign, lease, market, transfer, or otherwise make the Products or Content
(d) reverse engineer, decompile or otherwise attempt to extract the source code of the Service or any part thereof, unles
(e) use the Products in a manner that gives you or any other person access to mass downloads or bulk feeds of any Cont
(f) delete, obscure, or in any manner alter any warning, notice (including but not limited to any copyright or other proprie
(g) use the Service or Content with any products, systems, or applications for or in connection with (i) real time navigation
3. Appropriate Conduct; Compliance with Law and Google Policies. You agree that you are responsible for your own condu
(a) defame, abuse, harass, stalk, threaten or otherwise violate the legal rights (such as rights of privacy and publicity) of
(b) upload, post, email, transmit or otherwise make available any inappropriate, defamatory, obscene, or unlawful conten
(c) upload, post, transmit or otherwise make available any content that infringes any patent, trademark, copyright, trade
(d) upload, post, email, transmit or otherwise make available messages that promote pyramid schemes, chain letters, or d
(e) upload, post, email, transmit or otherwise make available any other content, message, or communication prohibited by
(f) download any file posted by another that you know, or reasonably should know, cannot be legally distributed in such m
(g) impersonate another person or entity, or falsify or delete any author attributions or proprietary designations or labels
(h) restrict or inhibit any other user from using and enjoying the Products or Google services;
I agree the license agreement.
I do not accept the license agreement.
OK
Cancel

Figure 4.1 Google Map term

Please read the user Google Map (free version) Terms of Service carefully, confirm whether to accept the terms of the agreement. Select “agree to the terms” or “not agree with the terms’’ check box, click the confirmation button to close the dialog box.

Note: Google Map cannot be used if you do not agree with the terms. If later you want to re-accept the terms, it can be re-set in configuration parameters (refer to parameter configuration).

§4.2 Local video playback

Loading local file:

Pressing the button on the bottom right of the main interface or clicking “Operate”->“File Load”->Local Load” will pop up dialog box, as shown below:

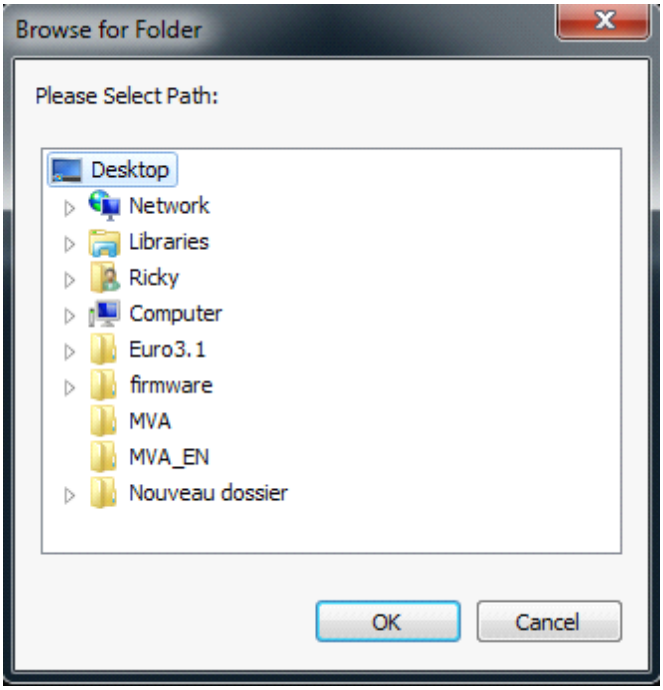


Figure 4.2 Local video load dialog box

Note: The name of the video files should be start with ch01, ch02, ch03, ch04. For example, ch01_20090420104050.mp4 is standard video file name.

Waiting for the loading:

After selecting the video file, the following dialog box will pop up:

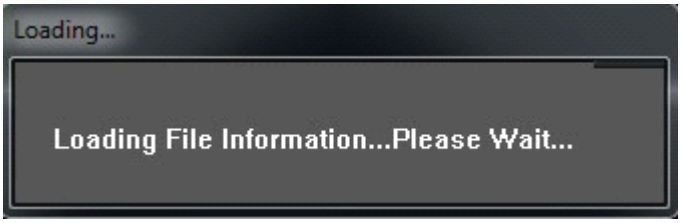


Figure 4.3 File Loading

The waiting time is depending on the volume of the video date and the performance of the PC.

Loading completed:

After the loading finished, you will see the video files as well as its information including video channel, starting time, ending time, volume in the files list and the corresponding date will highlight on calendar. As shown below:

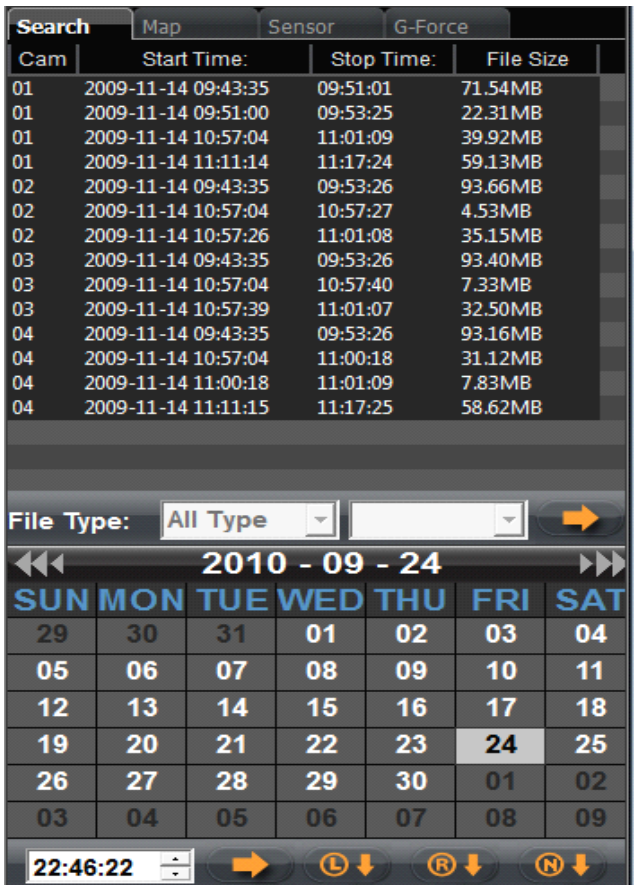


Figure 4.4 File List

Playback and control:

Double click the file on the list to play the related video. The play control bar is shown as below:

Figure 4.5 Play Control bar

§4.3 Removable HDD playback

Connecting the removable HDD to PC via USB cable and you will find the HDD in your PC, as shown:

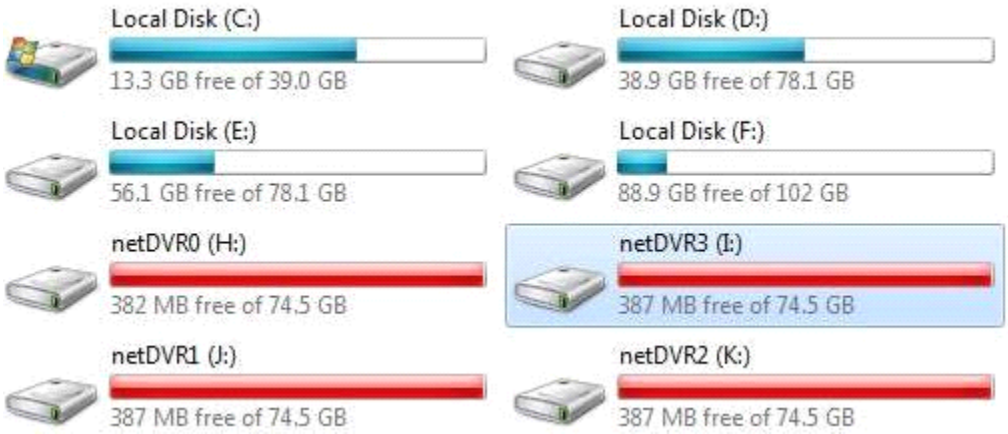

Local Disk (C:)
13.3 GB free of 39.0 GB
Local Disk (D:)
38.9 GB free of 78.1 GB
Local Disk (E:)
56.1 GB free of 78.1 GB
Local Disk (F:)
88.9 GB free of 102 GB
netDVR0 (H:)
382 MB free of 74.5 GB
netDVR3 (I:)
387 MB free of 74.5 GB
netDVR1 (J:)
387 MB free of 74.5 GB
netDVR2 (K:)
387 MB free of 74.5 GB

Figure 4.6 Removable HDD

Note: Please use removable HDD with USB2.0 protocol or above.

Loading the removable HDD files:

Pressing the button on the bottom right of the main interface or clicking “Operate” ->”File Load” -> “Disk Load”, then waiting for the loading.

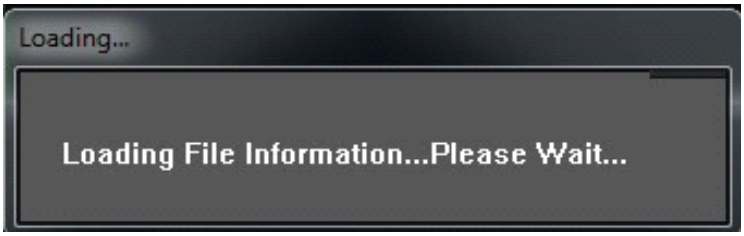


Figure 4.7 loading files

Loading completed and playback:

After the loading finished, you will see the video files as well as its information including video channel, starting time, ending time, volume in the files list and the corresponding date will highlight on calendar.

Double click the file on the list to play the related video. As shown below:

Figure 4.8 Removable HDD playback

§4.4 Net DVR/DVS video playback

Pressing the button on the bottom right of the main interface or clicking “Operate”->“File Load”->“Net Load” will pop up the following dialog box , then input the IP address, port, user name, password, file type of the DVR/DVS.

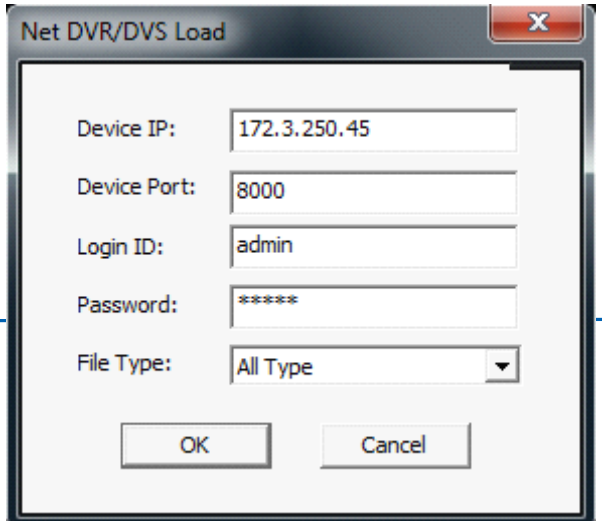


Figure4.9 Net device login

If login in successfully, you will see the video files in the file list. Double click the file on the list to play the related video.

Note: File list refresh time and video playback response time is depending on the corresponding network conditions.

§4.5 HDD file type selection

The operation interface is in the right central, between the file list and calendar, as shown below. There are two dropdown lists: main type and sub-type.

Figure 4.10 Video type

Note: This function can only be used for removable hard disk load mode and do not support the local load and network load mode.

There are three selections in the main type dropdown list: All, Scheduled recording, Alarm recording. As shown below:

Figure 4.11 Main type

The sub-type will be effective only when the main type is selecting as alarm recording. The sub-type is the channel where the alarm triggered. The users can also custom the alarm channel name in menu “Config”.

Figure 4.12 sub type

§4.6 Playback positioning

Using the button on the main interface:

Set the date and time, and then press the button ,it will jump to a specified time for video playback.

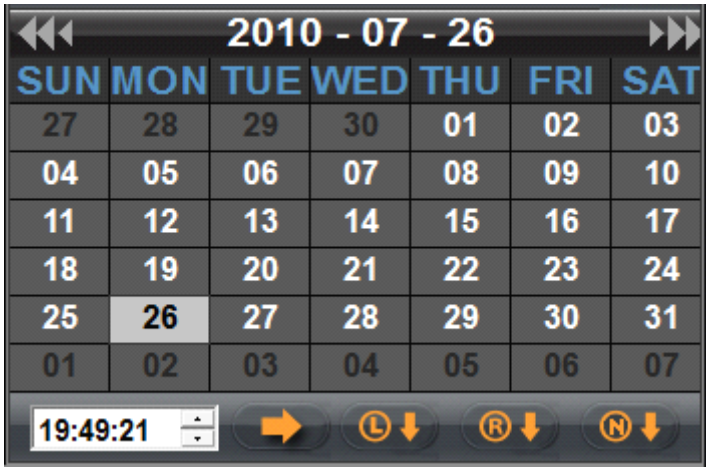


Figure 4.13 Main interface positioning

Using the menu:

Clicking “Operate”->“Video Dispose”->“Set play time ”will pop up the following dialog box. Set time you want to playback and press ok.

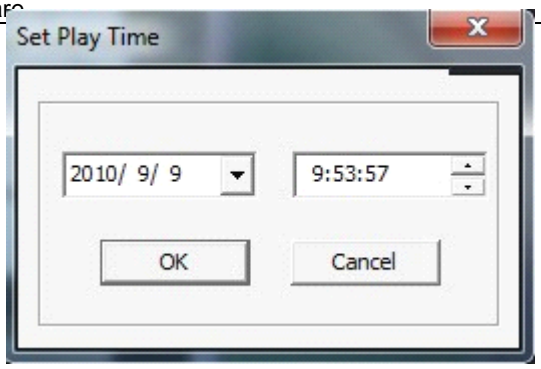


Figure 4.14 Playback position using menu

Locate playback time by dragging the time bar:

Progress bar can be dragged to the specific time for video playback:

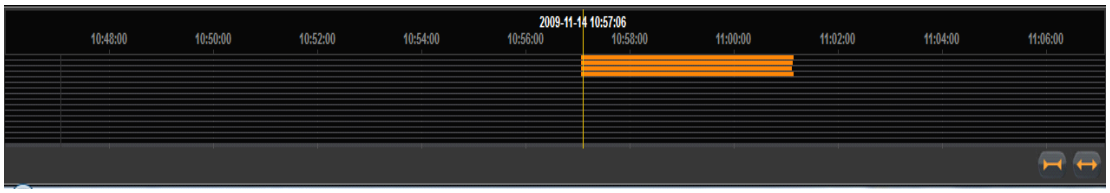
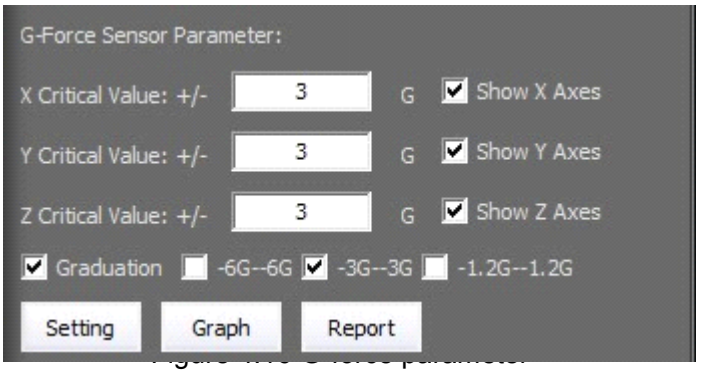


Figure 4.15 Playback position using time bar

Note: There may be some degree of error in the positioning. MVA software will take the minimum time in the sync channel as the benchmark.

§4.7 G-force sensor parameter configuration

This interface is mainly for displaying the X, Y, Z three axis status of vehicle. The G-force sensor parameter configuration menu is for adjusting the size of graph and setting the critical value of alarm. The G-force data can be exported in this menu too.



The critical value of alarm setting: the value range is between -6G and +6G, click **setting,** then the value out the setting range will be highlight in red.

Show x/y/z axis: Click the check box to show or not show the corresponding axis.

Graduation: Click the check box to show or not show the graduation grid.

Scale range: There are three options: -6G-6G, -3G-3G, -1.2G-1.2G.

Report: You can export the current value by clicking report.

One example setting is shown below:

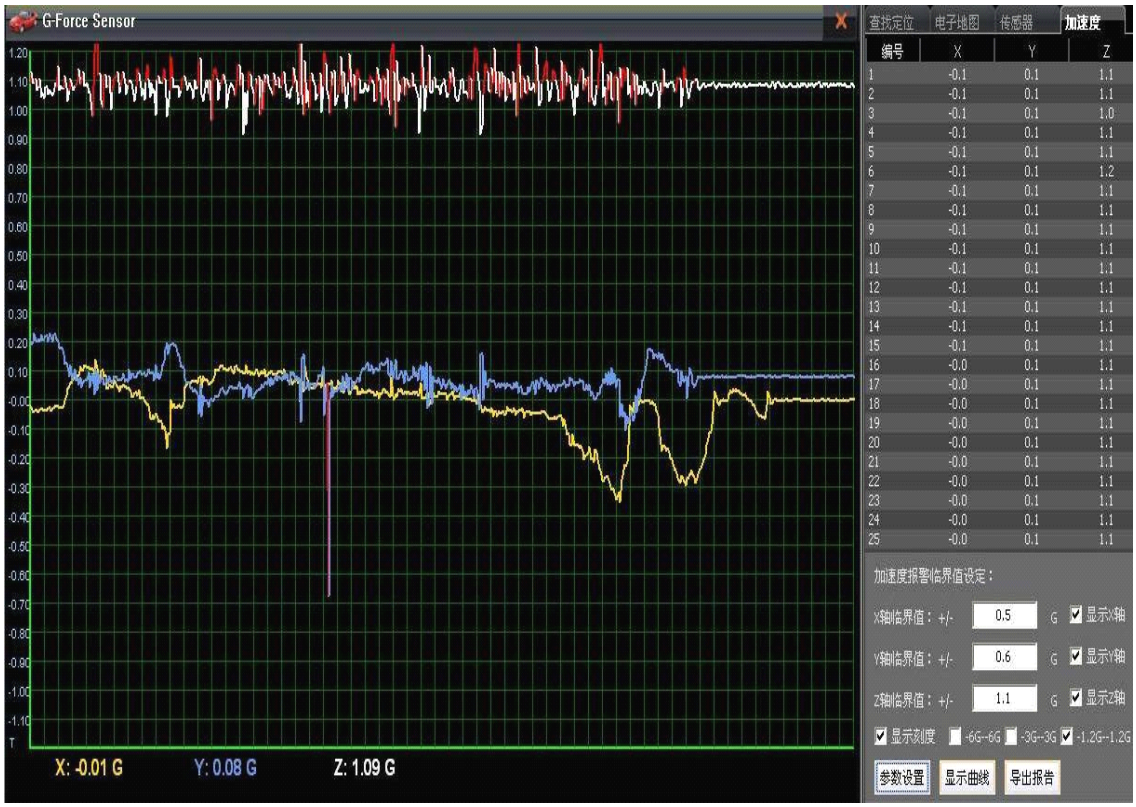


Figure 4.17 G-force sensor module

§4.8 Split Screen

There are 8 screen splitting modes and one full screen display mode; as show below:

Figure 4.18 Screen Splitting

The MVA software now supports full-screen preview, 1 screen preview and 4,6,8,9,10,13,16 screens preview.

§4.9 Preview Choose

Clicking the “play”->”View choose” will pop up the following dialog box.

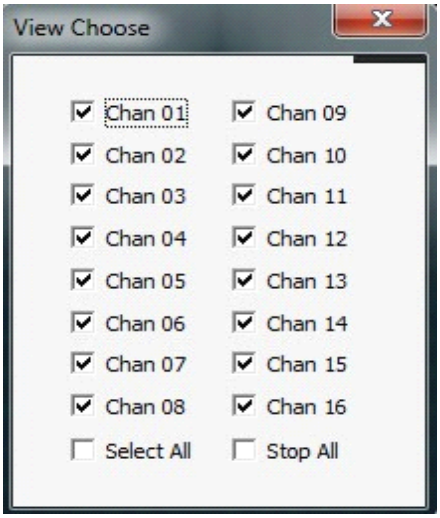


Figure 4.19 Preview channel

You may choose to watch one or some particular channels playback here. The multi-channel decoding will occupy a very high resource of the PC in some practical applications. After selecting the channels, you can directly close the dialog box.

§4.10 Enable audio

Clicking the “play”->”Sound choose” will pop up the following dialog box.

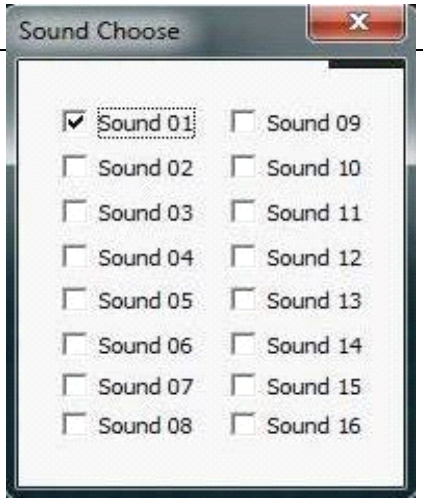


Figure 4.20 Enable audio

When a video& audio stream video is played, you can enable the audio here. After enabling the sound, you can directly close the dialog box.

§4.11 Video clip

This function can be used only when the video is playing. Firstly, choose a window, and then click “Operate”->”Video Dispose”->”Video cut “, then following dialog box will pop up.

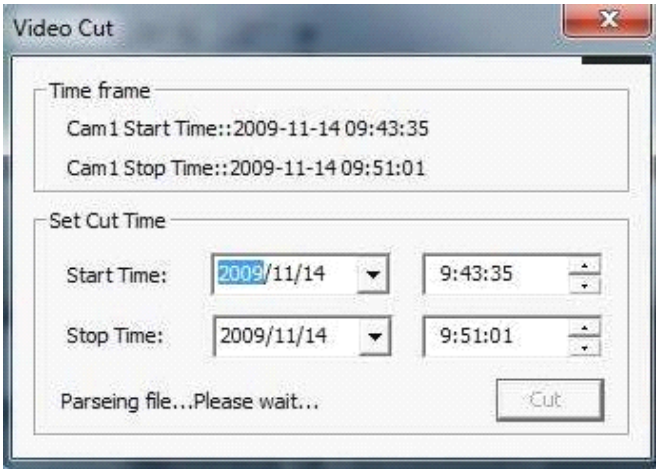


Figure 4.21 Video clip

Set the starting time and end time, as shown below:

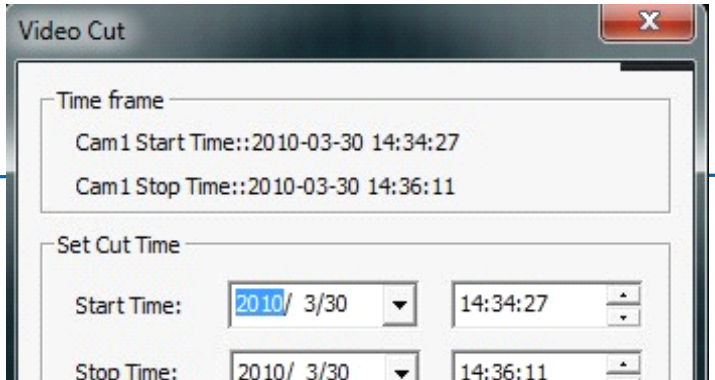


Figure 4.22 Video clip ready

Click cut, video clipping begins. As shown below:

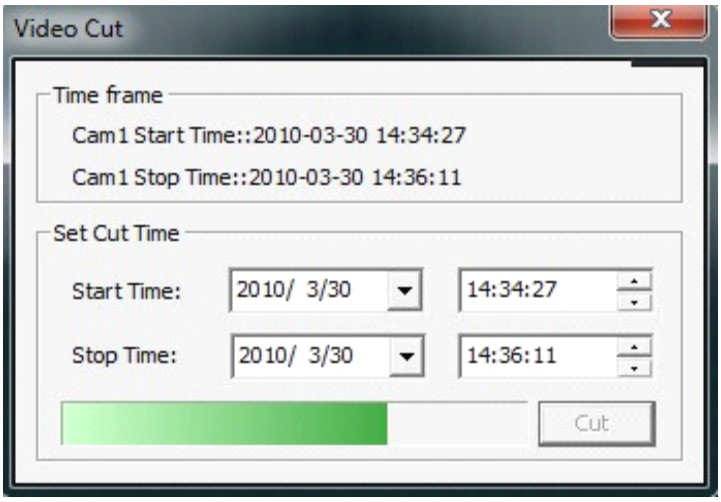


Figure 4.23 Clipping

After clipping successfully, following dialog box will pop up.

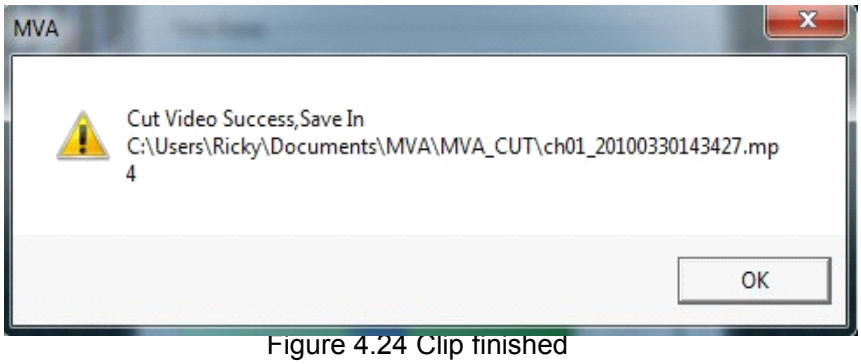


Figure 4.24 Clip finished

§4.12 Video format convert

This function can be used only when the video is playing. Firstly, choose a window, and then click “Operate”-> “Video Dispose”-> “Video Covert”, then following dialog box will pop up.

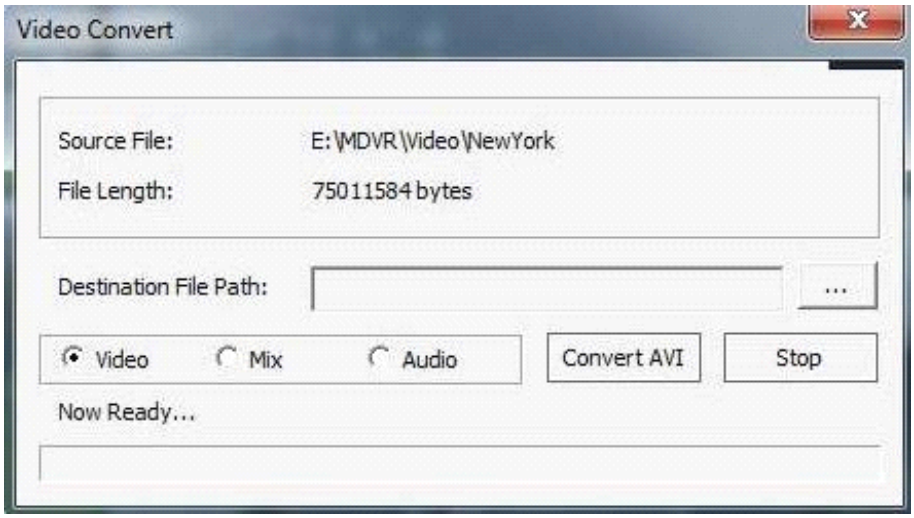


Figure 4.25Video Converting

Select the original video type and the destination file path, as shown below:

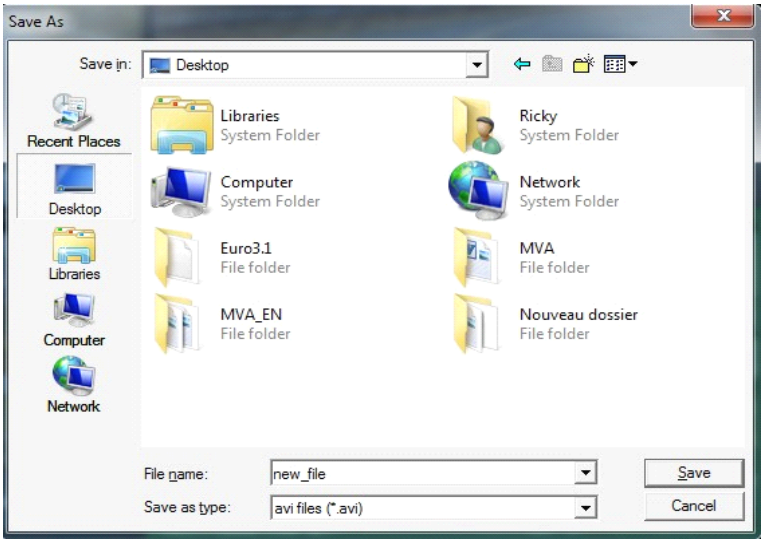


Figure 4.26 Choose save path

Click save and then click convert AVI, as shown below:

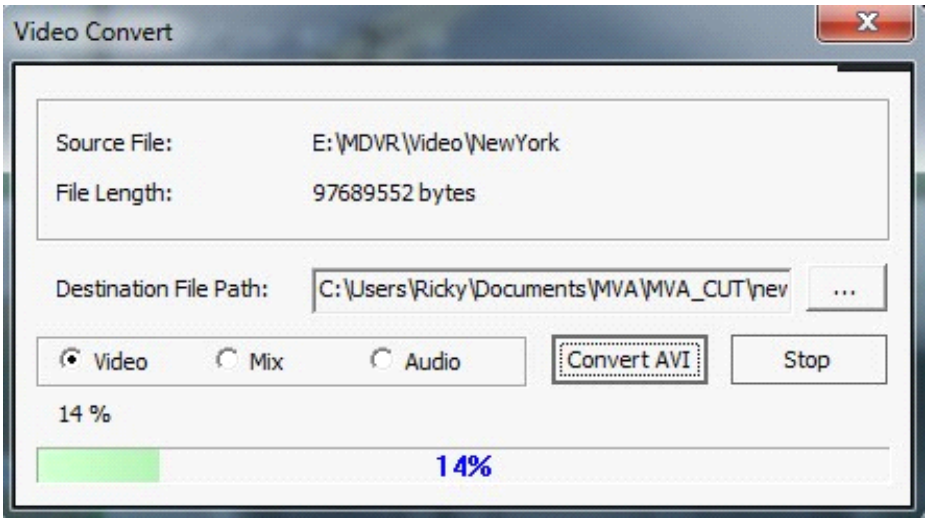


Figure 4.27 Coverting

After converting successfully, following dialog box will pop up.

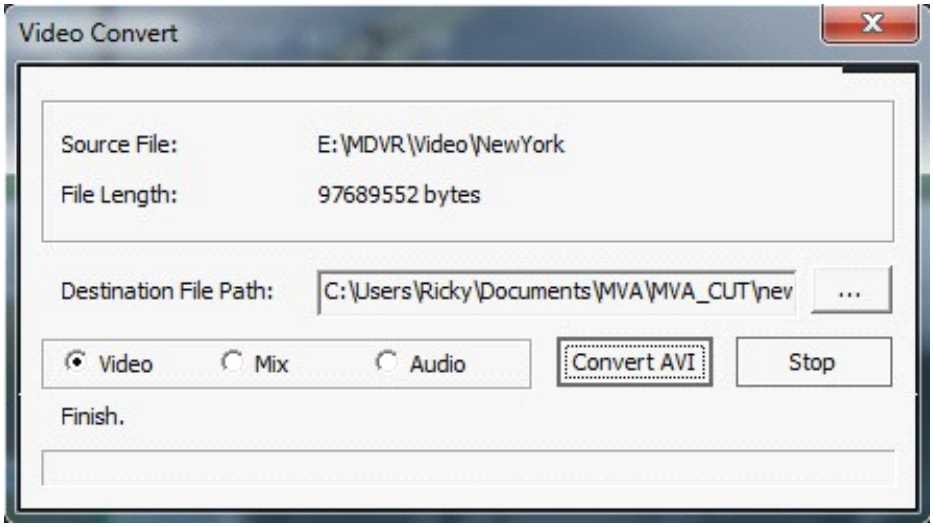


Figure 4.28 Coverting finished

§4.13 Video download

Removable HDD video download:

1. Connect the removable HDD to PC via USB cables;
2. Load HDD information. (press the button);
3. Click “Operate”->“File Export”->“Video Download”, then following

dialog box will pop up.

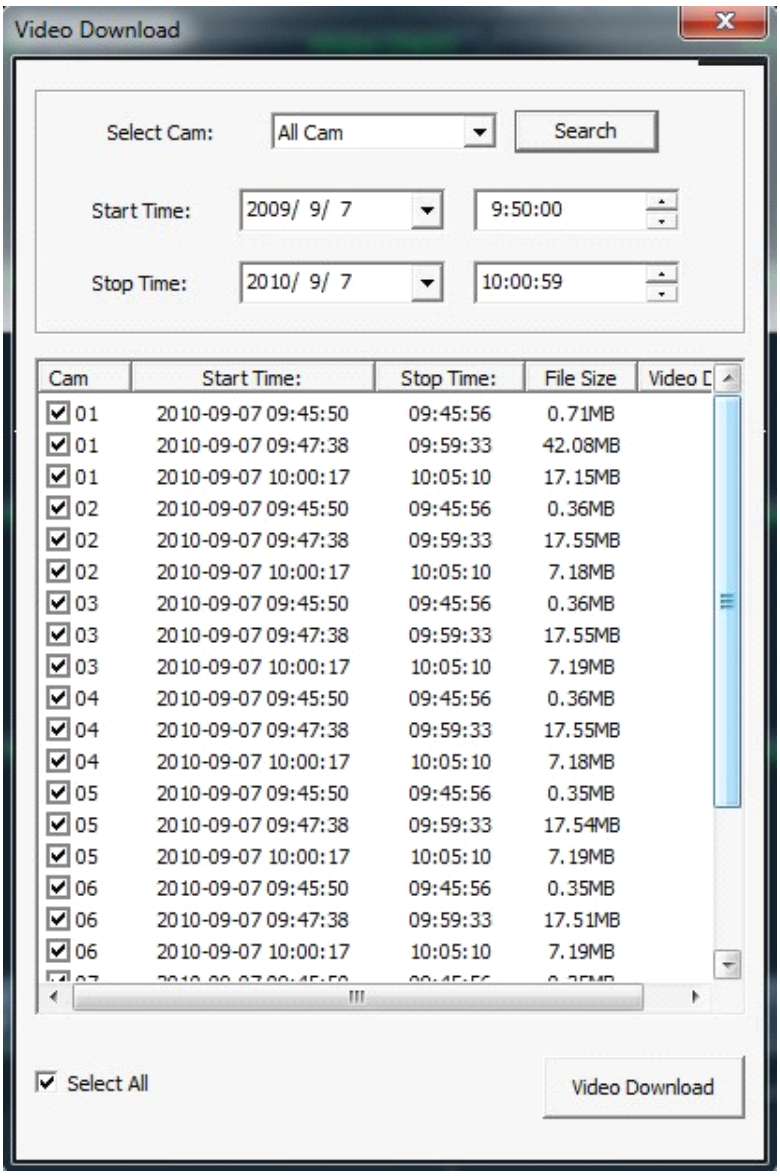


Figure 4.29 Video Download

Search for the video you need, and select the video need to be downloaded, and then click Video Download, following dialog box will pop up:

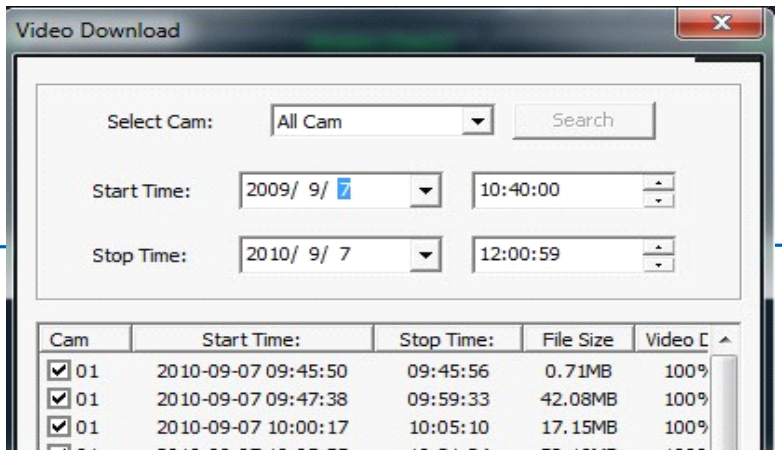


Figure 4.30 Downloading

Net video download:

1.Load the net device information (Press the button and the set the login in parameters).

2.Click “Operate”->“File Export”->“Video Download”, the rest is the same as the removable HDD video download.

Note: It takes some time when a large number of files need to be downloaded, depending on the performance of PC and the network environment.

§4.14 Batch Export

Batch Export is used for exporting the video files in bulk. This function is used to only in removable hard disk mode.

1.Connect the removable HDD to PC via USB cables;

2.Load HDD information. (press the button);

Click “Operate”-> “File Export”-> “Disk Batch Export”, then following dialog box will pop up.

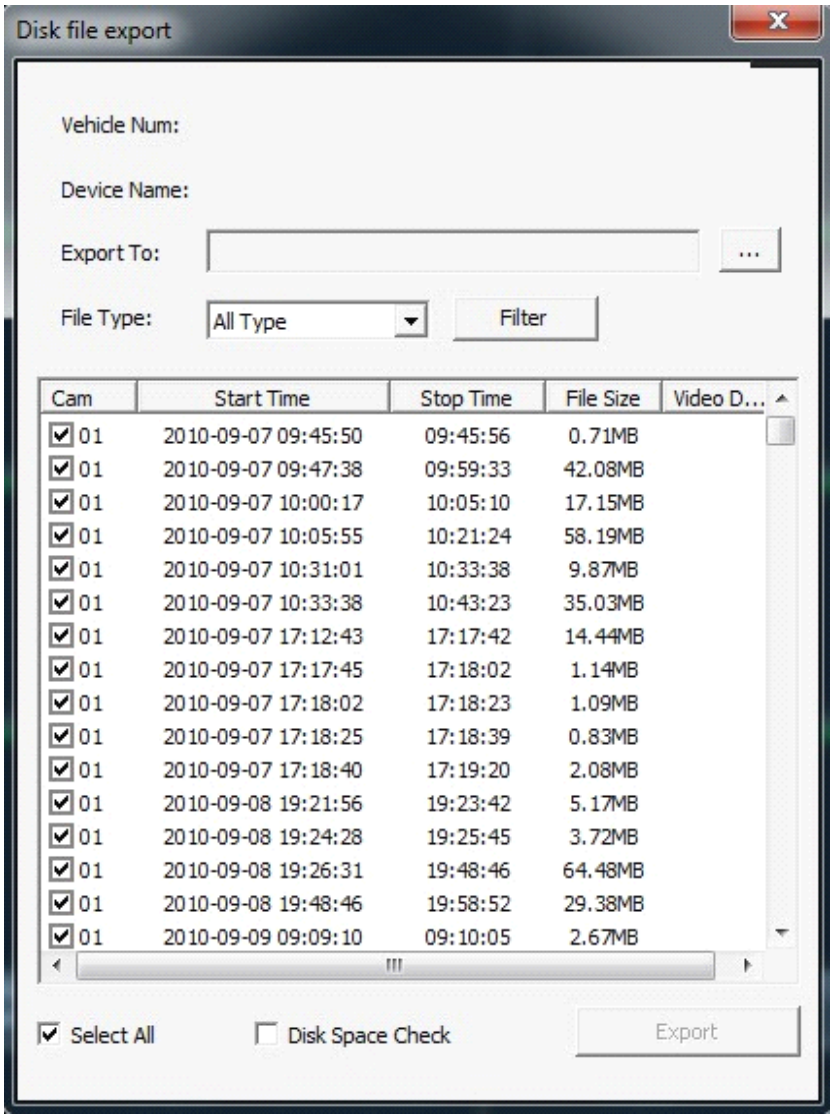


Figure 4.31 Batch Export

Select the files need to be export and click batch export.

Note: It may take lots time to export all the files. Please wait patiently.

§4.15 Video files Burning

After loading the video files, you can click “Operate”->“File

Export”->“CD/DVD burning”, then following dialog box will pop up.

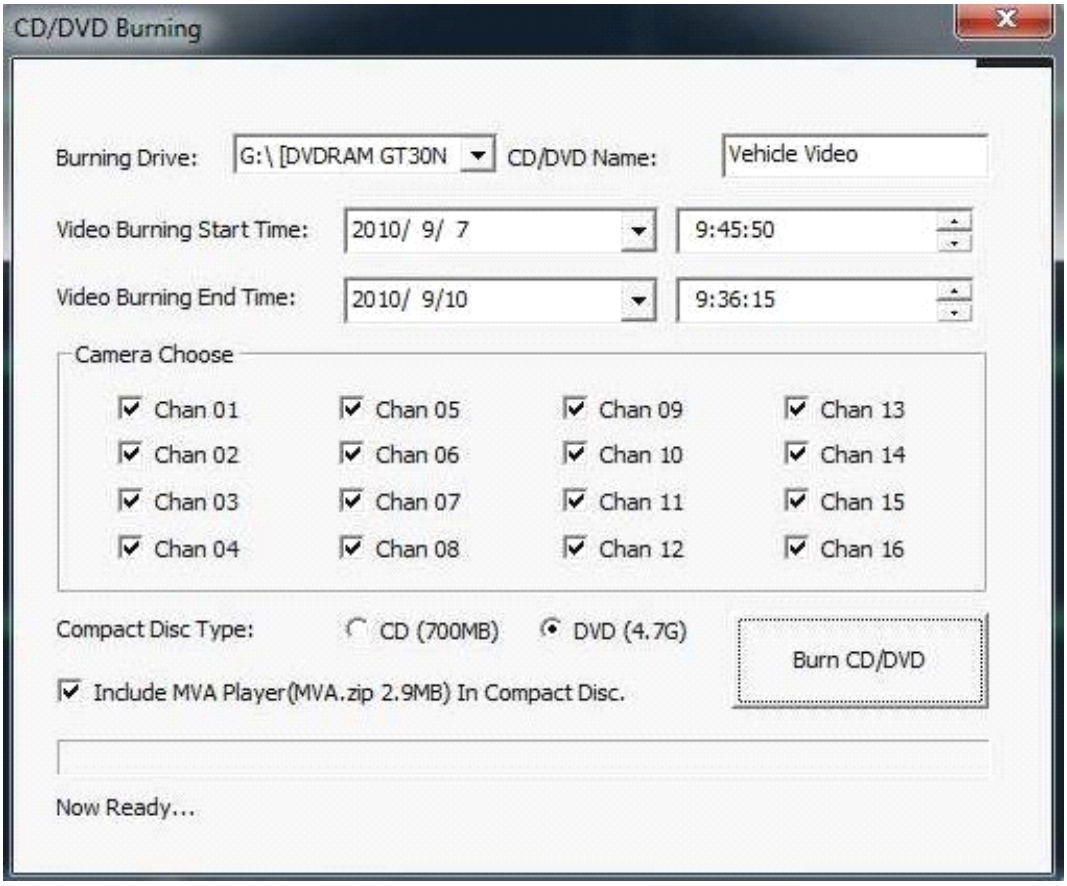


Figure 4.32 Video CD burning

Burning Driver: Select DVD/CD driver for burning. The software will offer you the dropdown list for the available drive in your computer.

CD/DVD name: Name for the CD/DVD disk.

Start time/ End time: Set according to your own needs.

Camera choose: After selecting the video channel, MVA software will filter in the list of files corresponding to the video channel.

Compact Disk type: Select CD or DVD according to practical situation.

Include MVA player: The player will be included in the CD/DVD after you enable the checkbox.

Burin CD/DVD: Start burning.

Video Burning function is commonly used for taking evidence. The MVA software will also be burned to DVD/CD at the end of the burning to facilitate future use.

Note: There are some differences between the normally use MVA software and the one be burned to DVD/CD.

§4.16 Parameter Configuration

Configuration of system parameters such as saving path, map type, display mode, speed mode, sync all channels play, custom alarm channel name can be done in this menu. Clicking **"config"->"system config"**will pop up the dialog box, as shown below:

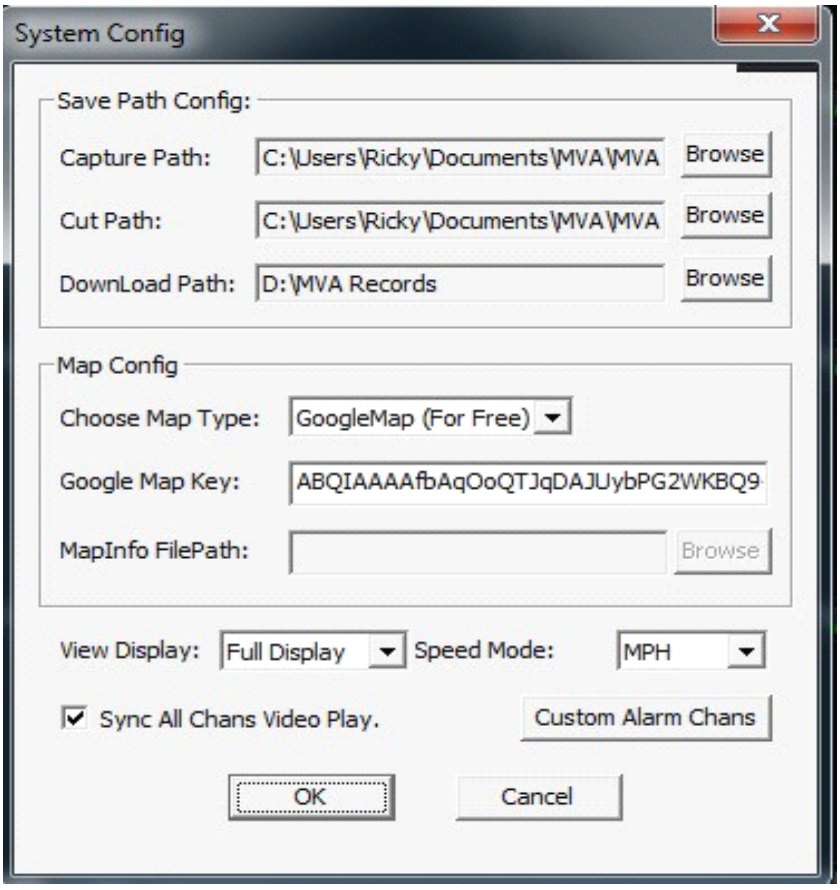


Figure 4.33 System configuration

Capture Path: Saving path for the captured image.

Cut Path: Saving path for the video clip.

Download Path: Saving path for the downloaded video.

Sync all channels play: sync the playback time.

Map type: There are two options: Google Map (online free version) and MapInfo V5.02 (offline, customer should have the official License);

If the Google Map is used, the customer should agree with the terms of service in order to get the key. If the MapInfoV5.02 is used, customer need to install the software and prepare the official license.

Google Map Key: The key for Google Map;

MapInfo Path: The MapInfo V5.02 file (map data file, *.gst) path;

Figure 4.34 Display with Google Map

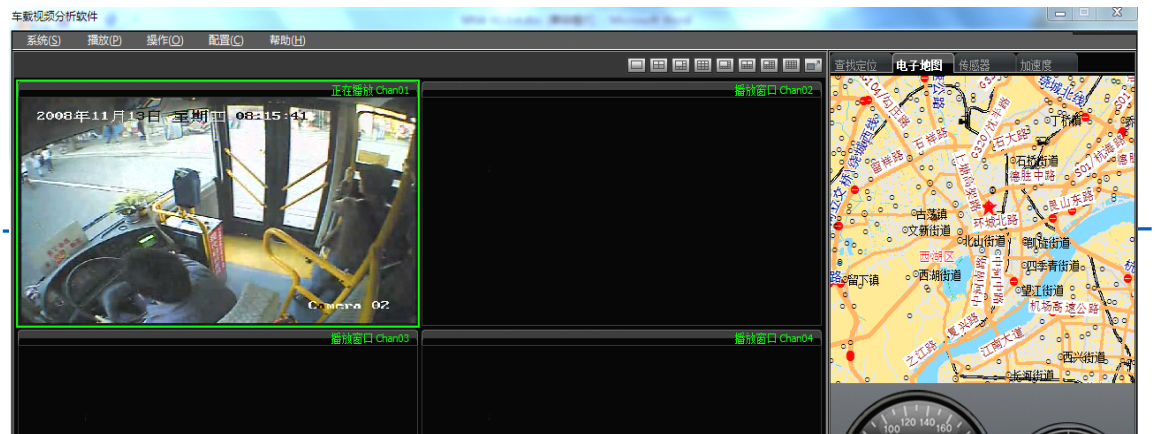


Figure 4.35 Display with MapInfo

Note: MapInfo software is not provided by us. The above image is just for demonstration. Re-select map type will be effective only by reboot the software.

View Display: There are three options: 4:3, 16:9 and full screen.

Figure 4.36 Full screen display

Figure 4.37 4:3 Screen display

Figure 4.38 16:9 Screen display

Note: 16:9 screen display is suggested to use in the wide screen display or related use.

Speed Mode: There are two options: MPH and KPH, as shown below:

Figure 4.39 KPH

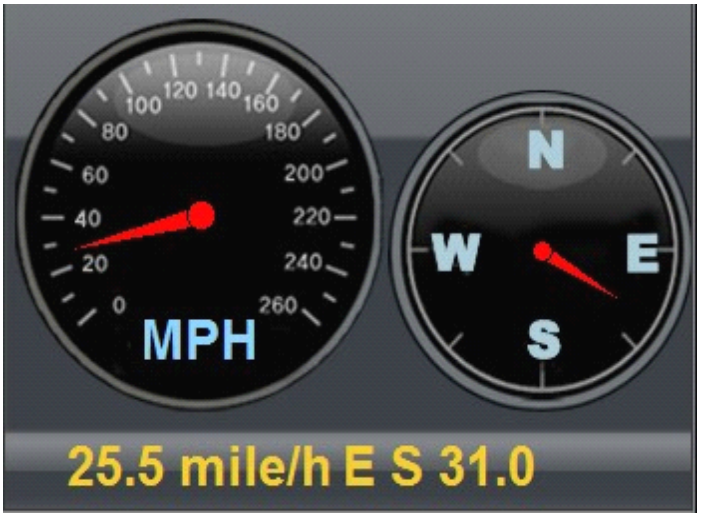


Figure 4.40 MPH

Custom alarm chans: Custom alarm channels name, maximum support 16 channels.

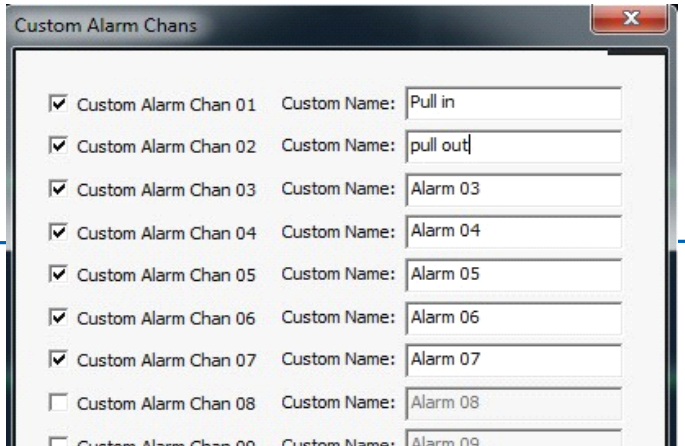


Figure 4.41 Custom alarm channels

The sub-type will be effective only when the main type is selecting as alarm recording. As shown below:

Figure 4.42 Alarm channel

§4.17 Network configuration

Customers can set login in parameters for LAN devices like DVR/DVS etc, as shown below:

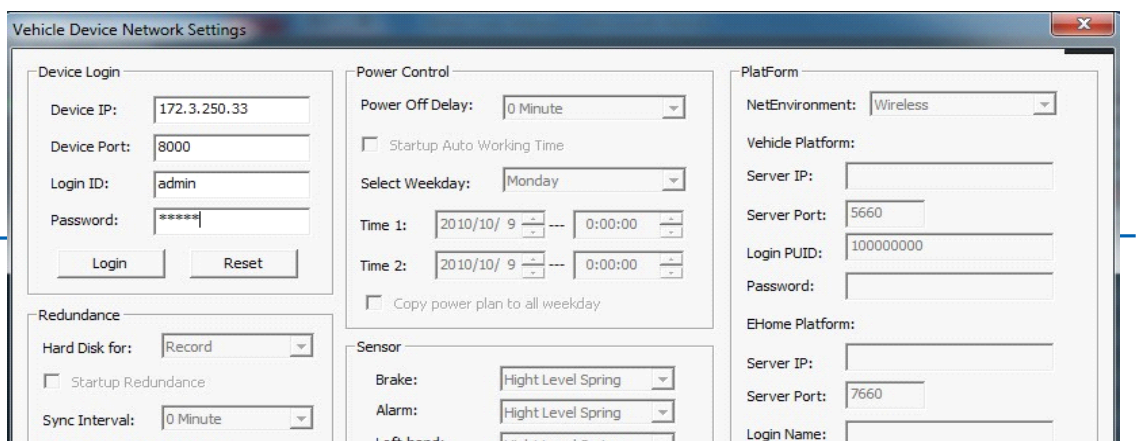


Figure 4.43 Network setting